Essay

Conservation and the Lure of the Garden

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Abstract: *Among the conservation voices today who seek a sensible "middle ground" in remedying land-use problems are those who propose a tend-the-garden ethic in which humans would merely need to view the earth as a garden and labor to make it productive and beautiful in order to solve conservation challenges. This line of reasoning is exemplified by Michael Pollan's highly praised book,* Second Nature*, which supports conservation values but harshly criticizes contemporary environmental efforts, including the work of such organizations as The Nature Conservancy. Pollan's portrayal of the gardener as model conservationist is usefully compared with an important essay by Aldo Leopold from a half-century ago, "The Farmer as a Conservationist," which similarly uses a model land tender as exemplar of where conservation needs to head. Comparing the two writings reveals profound flaws in the contemporary tend-the-garden line of thought. In doing so, it usefully reveals to scientists why their efforts are so often misunderstood and resisted. The popularity of tend-the-garden reasoning illustrates how successful the environmental backlash has been in misportraying the motives and aims of serious conservationists, particularly those who seek to protect wildlife and natural habitat. In doing so, it highlights the need for conservationists to take their own ideas more seriously and to do a far better job of presenting those ideas, in coherent form, to broad audiences.*

Conservación y el Encanto del Jardín

Resumen: *Entre las actuales voces conservacionistas que buscan un sensato "punto intermedio" en la remediación de problemas de uso del suelo se encuentran las que proponen una ética de cuidar-el-jardín en la que los humanos tendrían que ver a la Tierra meramente como un jardín, trabajar para hacerlo productivo y embellecerlo para resolver los retos de la conservación. Esta línea de razonamiento está ejemplificada por el muy elogiado libro de Michael Pollan,* Segunda Naturaleza*, que mantiene valores conservacionistas pero critica severamente los esfuerzos ambientalistás contemporáneos., incluyendo el trabajo de organizaciones como The Nature Conservancy. Es útil comparar la representación de Pollan del jardinero como conservacionista modelo con un importante ensayo de Aldo Leopold de hace medio siglo, "El Campesino como Conservacionista," que similarmente utiliza un cuidador modelo como el ideal de hacia donde debe ir la conservación. La comparación de ambos escritos revela profundos defectos en la línea contemporánea de pensamiento de cuidar-el-jardín. Al hacerlo, revela a los científicos porque sus esfuerzos son mal entendidos y rechazados tan a menudo. La popularidad del razonamiento cuidar-el-jardín ilustra el éxito que ha tenido la repercusión ambiental negativa en la interpretación incorrecta de los motivos y las metas de conservacionistas serios, particularmente los que buscan proteger la vida silvestre y el hábitat natural. En ello, resalta la necesidad de que los conservacionistas tomen sus ideas más seriamente y hagan mucho mejor trabajo en la presentación de esas ideas, de manera coherente, al público en general.*

Introduction

Heated debates about land conservation in recent years have given rise to various claims that sound, conservative land uses can be promoted by relatively simple measures (Freyfogle 2003). Most visible of these has been the claim that land conservation will come about—to the extent that it makes good sense—when all parts of nature are privatized—that is, turned into secure, private property. A related claim has been that conservation will take place (again to the degree that is sound), when the market is fully unleashed and every part of nature is subject to it (Freyfogle 2003). Less sweeping than these claims is that conservation is most likely to happen if people would

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simply shift the ways they think about land and how humans ought to live on it—view the land as a garden and then work to make it beautiful and productive.

Privatization and market-based solutions have drawn enthusiastic support, chiefly from business-funded groups and ideological advocates who want government restrained (Heritage Foundation, CATO Institute, American Enterprise Institute). The tend-the-garden line of thought, in contrast, has largely come from people who see themselves as true conservationists yet who believe the conservation movement has gone astray in its ethics, its aesthetics, and its over-reliance on science-based disciplines, including conservation biology.

Tend-the-garden thinking gained ground in the early 1990s, largely because of the fight then occurring between conservation activists and the rising environmental backlash. That backlash included several cultural components: the "wise-use" movement, which sought to intensify extractive uses of publicly owned resources (mining, timber harvesting, irrigation); the "property-rights" movement, which defended similarly intensive uses of private lands; and the growing criticism of government generally, which drew extensively upon libertarian and free-market reasoning (Echeverria & Eby 1995). Backlash rhetoric portrayed environmentalists as zealots who cared about every life form except humans, who were out to lock up as many lands as possible, and who were driven by a religious vision that had no place in the democratic civic arena.

A consistent weakness in this backlash rhetoric has been its lack of citations to specific organizations, people, or published writings. Charges leveled against "radical environmentalists" or ardent "preservationists" were rarely connected to any mainstream conservation platform or tied to named organizations or well-known figures. For observers who knew what conservation was really about, the charges seemed inaccurate save for a few individuals at the far edge of the conservation bell curve. Still, the image of the zealous environmentalist appeared plausible enough to take hold as a general condemnation.

If radical environmentalism as thus defined by critics provided the social thesis and the wise-use and property-rights movements arose as the antithesis, it was only a matter of time before a synthesis emerged, a line of thought that expressed care for the land but that rejected the zeal attributed to radicals on both sides. This synthesis would be a strand of conservation thought (unlike backlash arguments) that would situate itself in the "radical center," the place to which people of balanced judgment, it was said, properly gravitate.

Biologist René Dubos offered a version of tend-the-garden reasoning in his prominent work from 1980, *The Wooing of Earth*, which celebrated the human capacity to improve nature when people use the land "with respect and love" and exercise their aesthetic imaginations (Dubos 1980). A more pointed and revealing example of this thought appeared in 1991 in *Second Nature* by Michael Pollan, a *Harper's* editor who spent 8 years living in Connecticut and tending a backyard garden (Pollan 1991). *Second Nature* records Pollan's trial-and-error education as he gradually turned his spacious yard over to vegetables, fruit trees, and ornamental plantings. Woven in and among his garden exploits are critical comments about the environmental movement of the day and suggestions on redirecting it. His own garden experiences, Pollan concludes, show the way to a more realistic and wholesome connection between people and land. To tend a garden well, fostering its beauty, is to enact on a small scale what humanity needs to do on the earth generally. Pollan's book was an early, leading work in this conservation-thought genre and set the tone for much that followed.

A good way to probe this tend-the-garden line of conservation thought, see what it contains, and assess its strengths and weaknesses is to compare Pollan's *Second Nature* with an earlier, similar essay by Aldo Leopold (1939), "The Farmer as a Conservationist." In his essay, Leopold also presents readers with a vivid image of how private-lands conservation might be achieved. In his 1990s vision of the proper relationship between humans and the land, Pollan describes a backyard gardener tilling his soil to produce food and flowers. Decades earlier, Leopold used the same literary technique to the same end; his farmer, like Pollan's gardener, exemplified the attitudes and practices that humanity needs to embrace if land and people are to thrive.

Leopold wrote "The Farmer as a Conservationist" for a general audience, principally a farm audience, and he was motivated in writing it by the same hope that led him a few years later to assemble the pieces in *A Sand County Almanac*: he wanted to encourage landowners to practice conservation and to help everyone see the value of conserving private lands. By 1939 Leopold knew that government alone could not remedy the conservation challenges of the day, particularly in landscapes such as his own, where public lands were few and private farms were intensively used (Meine 1988; Leopold 1999). In such a working landscape, conservation required action by individual owners. Landowners needed to leave room for wild plants and animals; they had to care for the soil; they needed to restore natural water flows; in short, they needed to use their lands as responsible members of the larger land community.

Before landowners would act this way, however, they needed to take more basic steps, Leopold concluded. They needed to foster a love of the land and a curiosity about it. They needed to grasp how the land worked ecologically and to know something of its history. Perhaps foremost, they needed to feel proud when their farmstead was healthy and shameful when it displayed visible signs of misuse. Thus, in writing his essay Leopold hoped to push farmers to tie themselves emotionally to the land in its entirety and not to care only about the parts they could use or sell.

Leopold's essay and Pollan's book display many similarities. Both authors had two principal audiences in mind: a primary audience of landowners, whom they hoped would listen to their land-use advice and abide by it on their own lands, and a more general audience of readers interested in conservation but needing help in thinking about it clearly. Both authors criticize dominant modes of thought, not just of those willing to abuse land but also of well-meaning conservationists whose work is simply not well aimed.

How, then, does the tend-the-garden line of conservation thought compare with Leopold's "The Farmer as a Conservationist," and what light might this comparison shed on the state of serious conservation work today?

"The Farmer as a Conservationist"

Leopold's essay is the shorter of the two works, but Leopold knew how to pack big ideas into small packages. "Conservation," he announced plainly in the essay's first line, "means harmony between men and land" (p. 255). "When land does well for its owner, and the owner does well by his land; when both end up better by reason of their partnership, we have conservation. When one or the other grows poorer, we do not" (p. 255).

Properly undertaken, Leopold implied, conservation can achieve a desirable outcome for people and land alike. Dealings with the land ought to be understood not as adversarial or unequal but as a partnership for the benefit of all. To call the relationship a partnership implies a certain mutuality and reciprocal respect, a need for cooperation and give and take. By describing the human-land bond in this way Leopold introduced the ecological orientation that was so central to his views. People belonged to the land just as much as the land belonged to people. All life that inhabited a place, people included, formed an integrated community of life. And like other communities, the land community could be more or less healthy and prosperous.

Land degradation happened, Leopold explained, both when people exhausted the land by using it too intensively and when the land's mechanisms got out of order. In many instances of degradation the land remains fertile yet its inner workings become disrupted, just as the inner workings of a machine might fail if it were missing parts or drained of oil. Leopold's audience of farmers knew about machines and the importance of keeping them functioning. To this audience, it was rhetorically effective to speak of the land as a mechanism, even though Leopold knew the comparison was imprecise. The land mechanism, Leopold explained, could get out of order, such as when livestock are allowed to graze in woodlots, waterways are materially disrupted through drainage and straightening, or soil is abused so that it no longer performed its physical and biological functions. "Conservation, then," he told them, is about "keeping the resource in working order, as well as preventing overuse" (p. 257).

Leopold's ecological message made the work of conservation more difficult because it required landowners to understand their farms as integrated ecosystems and learn to spot evidence of malfunctioning so they could take steps to correct it. Leopold's message also required landowners to pay attention to all of nature's parts, even the parts that seemed worthless to humans, because innumerable parts possessed value in sustaining the land's operation. Here Leopold offered as example the bog-birch, "a mousy, unobtrusive, inconspicuous, uninteresting little bush" that meets no human need for food or fiber. What the bog-birch does is supply valuable food for the sharp-tailed grouse and other wildlife during stressful winter months. It keeps wildlife from starving, with the wildlife, in turn, playing important roles in keeping the land machine going.

At this point, Leopold is close to the heart of his message. To practice conservation, landowners need to know a great deal, and they need the ability to use that knowledge in a practical way. Leopold refers to this knowledge base simply as "skill," a talent that cannot be learned from books alone. Skill comes from a careful attentiveness to the land and from a readiness to respect nature's equal management role. Skill arises within a person who possesses "a lively and vital curiosity about the workings of the biological engine," a person inspired by "enthusiasm and affection." These are "the human qualities requisite to better land use" (p. 258).

So what kinds of land-use decisions would such a skilled person make, Leopold asked, and what would the land then look like? Here Leopold is brief because he believed that answers depend on the land itself, which varied from place to place. In southern Wisconsin, a skilled farmer would certainly "devote land to woods, marsh, pond, [and] windbreaks" as well as to row crops and pasture. He would devote land to bushy fencerows for birds and leave snag trees for raccoons. He would also, Leopold hoped, leave space "for a patch of ladyslippers, a remnant of prairie, or just scenery." Many of these moves, he confessed, make no money for the landowner. They are valuable only in the sense that they make the land more enjoyable and help promote its health.

If all landowners possessed this thing Leopold called skill and if they followed through on the conservation practices he recommends, the land would possess "a certain wholeness." Leopold describes this wholeness by drawing a comparison with the human body (p. 259):

> No one censures a man who loses his leg in an accident, or who was born with only four fingers, but we should look askance at a man who amputated a natural part on the grounds that some other is more profitable. The comparison is exaggerated; we had to amputate many marshes, ponds and woods to make the land habitable, but to remove any natural feature from representation in the rural

> landscape seems to me a defacement which the calm verdict of history will not approve, either as good conservation, good taste, or good farming.

What Leopold envisioned was a landscape in which people made room for other life forms. "Doesn't conservation imply a certain interspersion of land-uses," he asked rhetorically, "a certain pepper-and-salt pattern in the warp and woof of the land-use fabric?" (p. 260) If so, then landowners had no choice but to get involved in conservation. "It is the individual farmer who must weave the greater part of the rug on which America stands. Shall he weave into it only the sober yarns which warm the feet, or also some of the colors which warm the eye and the heart?" (p. 260) This question, Leopold believed, is one for farmers themselves to answer. But they are not private decisions to which neighbors and other community members are indifferent. "The landscape of any farm is the owner's portrait of himself" (p. 263). What a person does on the land tells the whole world the kind of person he is, about his level of skill, about his concern for aesthetics and future generations, and about his willingness to shoulder communal duties.

One obstacle to the achievement of a healthy landscape is the adverse economics of agriculture and land conservation for the individual farmer acting alone. But lying behind economic realities is a way of thinking about land that propels people to degrade what they possess. "Sometimes I think that ideas, like men, can become dictators," Leopold wrote as the world was once again slipping into war (p. 259):

> We Americans have so far escaped regimentation by our rulers, but have we escaped regimentation by our own ideas? I doubt if there exists today a more complete regimentation of the human mind than that accomplished by our self-imposed doctrine of ruthless utilitarianism. The saving grace of democracy is that we fastened this yoke on our own necks, and we can cast it off when we want to, without severing the neck. Conservation is perhaps one of the many squirmings which foreshadow this act of self-liberation.

Not content to chastise readers, Leopold ended his essay with a carrot, with an alluring vision of what the future could hold in terms of the land and the landowner if his ideas took root. What might a cornbelt farm look like, Leopold wondered aloud, after years of attentive conservation? There is the creek that would be unstraightened, he noted, with its banks wooded and ungrazed. The woodlot, also ungrazed, would include young sprouts as well as "a sprinkling of hollow-limbed veterans," and around the edge a few "widespreading hickories and walnuts for nutting." "Many things are expected," Leopold related,

> of this creek and its woods: cordwood, posts, and sawlogs; flood-control, fishing, and swimming; nuts and wildflowers; fur and feather. Should it fail to yield an owl-hoot or a mess of quail on demand, or a bunch of sweet william or a coon-hunt in season, the matter will be cause for injured pride and family scrutiny, like a check marked "no funds." (p. 263)

"The fields and pastures of this farm," Leopold continued, "like its sons and daughters, are a mixture of wild and tame attributes, all built on a foundation of good health. The health of the fields is their fertility (pp. 263–264). "The farmer is proud that all his soil graphs point upward, that he has no check dams or terraces, and needs none. He speaks sympathetically of his neighbor who has the misfortune of harboring a gully, and who was forced to call in the CCC. The neighbor's check dams are a regrettable badge of awkward conduct, like a crutch" (264).

Leopold adds still more detail to his idyllic vision of a healthy land. There was the bushy fencerow teeming with wildlife; the historic oaks; the prairie flowers and wild fruits; the bird list for the farm that included 161 species; and the farm pond, the "farmer's special badge of distinction," partially fenced off to protect ducks, rails, redwings, gallinules, and muskrats, provider of water lilies in September, good skating in winter, and rat-pelts for "the boy's pin-money."

With this argument and image, Leopold distills his message to the landowner—the results of his personal effort to figure out why bad land use was so common and what needed to change. This particularized vision of the individual farm, in turn, fit into Leopold's larger conservation agenda, which included healthy rivers, ample wildlife habitat, and well-chosen, diverse samples of wild areas. Unifying it all was the idea of land health, which Leopold in his late writings proposed as the overall goal for all conservation.

Second Nature

In *Second Nature*, Michael Pollan presents his garden image, and the conservation wisdom that he connects to it, boldly and powerfully. The image of man in the garden, tending it with care, provides a middle path between two orientations toward the natural world that are equally extreme. At one pole, Pollan explains, is the American inclination to dominate nature fully, to treat land as an object that humans can manipulate and consume at will. This attitude shows up emblematically in the standard American approach to lawns. Americans drench their lawns in chemicals to eliminate every plant and insect they do not like, Pollan tells us, while cutting the grass itself to give a uniform, carpet-like appearance. The typical American does not interact with a lawn in a respectful way: he beats it with chemicals and machines to keep it in line.

At the other pole for Pollan are the radical environmentalists and naturalists, who dislike human alterations of nature and who are at root "indifferent to our well-being and survival as a species." ("Have you ever noticed," Pollan asks, "that the naturalist never tells you where he lives"

[pp. 58–59]?) In the environmental world view, Pollan relates, individual trees (and perhaps other plants) have rights, and people who protect forests do so to honor those individual rights. Environmentalists urge humans to abandon their anthropocentrism and to replace it with a biocentric ethic in which all species are equal. Driven by such moral impulses, environmentalists have little or no sense of the land's beauty; indeed, Pollan relates, they are prone by their moral fervor to favor a hands-off attitude that produces landscapes that sensible people would deem ugly.

Pollan illustrates his critique by recounting the story of Cathedral Pines, a 42-acre forest tract in New England owned by The Nature Conservancy that suffered severe wind damage in a storm. The Nature Conservancy was content to leave the tract alone, but because of pressure by local residents it cut a firebreak around the tract's edge to reduce the chance that fire in the woods would spread elsewhere. The resulting landscape, in Pollan's view, was "grotesque." The grotesqueness came about because the conflicting world views that guided the forest's management were both misguided—on one side the ethic of domination, which Pollan attributes to the neighboring landowners (who wanted the ugly mess cleaned up and the whole forest replanted), and on the other side the wilderness ethic, which Pollan links to The Nature Conservancy (which proposed to leave the downed trees alone). It was "a classic environmental battle," in Pollan's view, one that "seemed to exemplify just about everything that's wrong with the way we approach problems of this kind these days." "We should probably not be surprised," he observes, "that the result of such a confrontation is not a wilderness, or a garden, but a DMZ" (p. 238).

Pollan believes that we would do better following a middle path in our dealing with nature, between the chemically washed lawn and the worshiped wilderness, between complete domination and complete acquiescence. And the garden, he suggests, provides a sound vision of that path. "The idea of the garden—as a place, both real and metaphorical, where nature and culture can be wedded in a way that can benefit both—may be as useful to us today as the idea of wilderness has been in the past" (p. 6). The garden "is a middle ground between nature and culture, a place that is at once of nature and unapologetically set against it."

As Pollan sees things, the gardener is a person who manipulates nature to produce the results he likes. He is unafraid to favor some species over others and to focus solely on his own needs and wants, yet his work is tempered by a measure of restraint. The gardener undertakes not to dominate nature completely but to achieve his production and aesthetic goals without using excessive force. A good gardener, that is, "can nimbly walk the line between the dangers of over- and undercultivation, between pushing nature too far and giving her too much ground." Pollan envisions a kind of honest conflict on the land, the sort of battle that an honorable soldier might engage in, avoiding the equivalent of poison gas and taking no unfair advantage but nonetheless fighting with determination, skill, and a commitment to win.

Pollan's guiding idea, borrowed from Wendell Berry, is that humans ought to use nature as their measure, letting it guide them in their manipulations. ("[L]earn to think like running water, or a carrot, an aphid, a pine forest, or a compost pile," he urges, though all the while remembering that a garden ethic is "frankly anthropocentric.") Unlike Berry, Pollan seems confident that a skilled gardener can tease nature into providing humankind with limitless bounty. Nature really poses no limits, Pollan believes. Indeed, environmentalists who speak of such limits simply do not understand that the earth is an open system, getting inputs of sunlight daily. With such sunlight, everything is possible; "in terms of the global ecosystem, there is a free lunch and its name is photosynthesis." A good gardener can actually reverse the second law of thermodynamics, as Pollan has done in his own back yard. Our environmental problems, he asserts, "have more to do with our technologies and our habits and economic arrangements than with the planet's inherent limits or the burden of our numbers."

What we require to move ahead, Pollan believes, are new metaphors or images of nature, and he derives several from his experiences looking at the trees of Connecticut. We should view nature, he says, as an organism, with the trees as its lungs that help clean the air. In addition, given global climate change and other atmospheric problems, we might properly view trees like the coal miner's canary. "It's obviously impossible to predict," Pollan says, but one can hope that these "new metaphors" will catch on.

When the garden supplies our image, Pollan explains, one's work with the land is guided by aesthetics and ethics. Aesthetics enters the management equation, not to shed light on right and wrong conduct, but to help shape a landscape that is more pleasing for the gardener. Free to implement her aesthetic preferences, Pollan's gardener can reshape things as she sees fit, replacing native species with highly bred ones and otherwise treating the land as a canvas awaiting the artist's touch. It is on the issue of aesthetics that radical environmentalists, Pollan says, are most plainly misguided. As evidence, he relates the tale of a prominent local environmentalist who put a compost pile in the middle of his garden. Pollan knew instinctively why this was done: It was done as a moral gesture, and because the environmentalist had no sense of aesthetics. Had he let aesthetics guide, he presumably would have put a birdbath, fountain, or sculpture in the middle.

On the ethics component of his land-management formula, Pollan is vague, but he manifests in his own work an element of restraint and humility as he refashions nature. Pollan dislikes chemical pesticides and thinks the

gardener ought to compost. He chooses to leave the small wetland on his property undrained though without explaining why or whether a gardener in his situation should feel obligated to do so. What Pollan offers, then—like Rene Dubos in his 1980 essay—is a suggestive rather than definitive vision of what good land use entails (pp. 232–233):

> The gardener in nature is that most artificial of creatures, a civilized being: in control of his appetites, solicitous of nature, self-conscious and responsible, mindful of the past and the future, and at ease with the fundamental ambiguity of his predicament—which is that though he lives in nature, he is no longer strictly *of* nature. Further, he knows that neither his success nor his failure in this place is ordained. Nature is apparently indifferent to his fate, and this leaves him free—indeed, obliges him—to make his own way here as best he can.

Pollan offers his garden vision as an all-encompassing conservation ethic, applicable, it seems, to all lands everywhere. When all lands are tended as gardens, we have no need for refuges or wild-area set asides. All areas are available to tend.

Gardening as a Conservation Ethos

Pollan's book has gained admirers in large part because of his garden image, an image that, to the pleasure no doubt of many readers, puts humans firmly in the center and in control. It is essential in assessing his work to consider that image on its own and in comparison with Leopold's essay. Before getting there, however, it will be useful to weigh a few of the less important but nonetheless instructive elements of Pollan's narrative.

Pollan's Critique of Environmentalism

A number of Pollan's comments about environmentalists are plainly more caricature than apt description, taken not from real life but from depictions constructed by the environmental backlash. They describe no sizeable element within the turn-of-the century conservation movement, and Pollan does not provide evidence that attests to the validity of his characterizations. One is hard pressed, for instance, to find evidence of any claim that individual trees have rights, a view that for Pollan characterizes environmental thought as a whole (though there are many who, as did Albert Schweitzer, believe that all life deserves a modicum of respect—a claim quite distant from the assertion that individual plants have "rights").

Pollan's complaint that environmentalism is driven by a vision of untouched wilderness is also wide of the mark, though it does bring in a tiny strand of the movement. The more accurate truth is that conservation has always centered on mitigating direct insults to human health and on improving the condition of places where people live, the air they breathe, the water they drink, and the food they eat (Hays 1987). Such efforts dominate day-to-day conservation work everywhere, and in some states make up the totality of it. Even wilderness preservation efforts—which Pollan supports—have largely built upon the many ways wilderness patches aid larger, human-inhabited landscapes, along with their direct values to human users.

Conservation efforts to protect endangered species have similarly been phrased in terms of the values that such species have or might have for humans, not in the biocentric rhetoric that Pollan condemns. Indeed, many conservationists have complained because species-preservation efforts are not as focused on the moral claim that humans have duties to protect other species, duties either to the species themselves or to future generations of humans. According to public opinion surveys, this moral claim is supported by over 80% of all Americans, and, indeed, the public as a whole supports it more strongly than do members of the Sierra Club (Kempton et al. 1995). Pollan's allegation that environmentalists are indifferent to the well-being of humans, aside from its falsity, is insulting to a good many community-minded conservationists.

Pollan is certainly right that environmentalists view human culture as the ultimate origin of our problems, but so do environmental historians, virtually all scholars who have probed the issue, and even the public at large (Worster 1993; Kempton et al. 1995; Steinberg 2002). Flawed culture is at the heart of environmental decline, and environmentalists have strived for years to highlight and correct the flaws, just as Pollan does.

Pollan's work is weakened by his entertaining, straw-man construction of environmental thought. Pollan uses that construction, however, to serve as a backdrop to his own vision of humans active in the garden. That image is a more positive offering and, shorn from his pejorative comments, deserves our serious attention.

The Gardener and the Landscape

When the gardener begins creating a garden, the first step is typically to strip the land clean, just as Pollan did on much of his Connecticut land. Plow under everything that is there, and start with something new. What gets planted is chosen by the gardener; it is a human choice, guided by the gardener's whims and wants. Nature constrains the gardener, of course, by allowing only certain species to grow outdoors in a given climate. But that is apparently nature's only role in Pollan's scheme. Pollan is content to allow room for non-native plants, whether from across the continent or from around the world. He is also content to use plants that will live only with constant human attention; their vigor or hardiness without human support are of no concern. Indeed, he seems to like the idea that, in a garden, everything depends on the gardener and will die if he fails to tend the place well.

In Pollan's garden only his few chosen species are welcome, and he vigorously wards off other plants and animals. Pollan does show restraint in his chosen means of attacking pests, favoring biological pest controls over chemical ones, for instance. But it is not clear why that is so—why other gardeners would share his sensitivities and restraint—nor would his garden image necessarily lead a person to exercise such restraint. The line Pollan draws around his garden—chosen species in, unwanted ones out—is emblematic of the ecological disconnection between Pollan's garden and surrounding nature. Inputs, both for the garden and the gardener, arrive from somewhere else, and wastes largely go somewhere out of sight: it is a linear system, just like that of industrial agriculture, not the cyclical fertility system that characterizes nature left alone. Pollan's personal garden happens to abut wooded land and perhaps comports well enough with the ecological health of the larger landscape (though Pollan scoffs at the connection: "don't lecture me about . . . the continuity of gardens and the natural landscape"). But what if his situation had been otherwise? What if his garden had abutted a neighbor's garden, and that one abutted another, and each gardener kept out unwanted species and paid no attention to ecological interconnections? What if his garden were like an Illinois cornfield, placed side by side with other cornfields and intensively managed so that disfavored species (that is, virtually all species) had no places to live?

At bottom, Pollan's garden is merely an arbitrary patch in a much larger landscape. It is a separate piece of the land under the gardener's complete control. Focused on such a small piece of land, the gardener can easily ignore the ecological ripples. The underlying problem, most simply, is Pollan's small spatial scale. The gardener's concern is about the productivity and beauty of the patch alone, not the larger landscape. Focused on the patch alone, Pollan's tend-the-garden reasoning makes a mistake in logic: he assumes, incorrectly, that a quality or practice that applies to the part necessarily applies to the whole. Then there is the related problem of the gardener's isolation from the surrounding social world. Pollan positively encourages gardeners to embrace a go-it-alone attitude. Put up a wall or fence around the garden, he admonishes, so that no one can look in and so that you can do what you want, free of outside pressure. In dealing with surrounding landowners, the best attitude, we are told, is the American liberal ideal of live and let live—precisely the attitude that has brought such destruction to our lands.

Pollan suggests that aesthetics will prompt a gardener to take decent care of the land, but aesthetics untethered from nature are notoriously subjective. The farmer who keeps his bean fields weed-free with herbicides; the rural landowner who mows acres of lawn and leaves room for nothing else; the pond owner who puts rocks all around the water's edge and excludes all nesting vegetation for waterfowl; the landowner who cuts down dead trees because they are unsightly—these actors all have aesthetics as a driving purpose. As for Pollan's personal aesthetic sense, he embraces a fondness for geometric patterns and is particularly drawn to straight lines (287):

> I immediately liked the way a freshly cultivated row of plants stood out against the rolling land around it, the stillness of it in the face of so much upheaval. That rub, between the flat man-made line and the landscape's own bent toward curve and motion, seems to lend a certain energizing tension to a garden, to give it, quite literally, an edge.

For his most extended example of how a gardener ought to meld nature and culture in balanced fashion, avoiding overcultivation, Pollan turns to his rose beds and to the vast rose-breeding industry. In doing so, though, he succeeds more in entertaining readers than clarifying his conservation proposal. Pollan likes older rose varieties, which are more disease-resistant and more fragrant. A particular favorite for him is the Madame Hardy rose, which first appeared in 1832 and which "embodies the classic form of old roses, and comes closer to the image the word rose has conjured up in people's minds . . . than does the rose in our florist shops today" (p. 108). Contrasted with the Madame Hardy is the contemporary, showy Dolly Parton rose ("a rose with, you have guessed it, exceptionally large blossoms"). The Madame Hardy rose, Pollan tells us, is a good product of nature and culture coming together; the Dolly Parton, in contrast, is a "regrettable offspring." Our prime need today, Pollan relates—more important even than protecting swamps—is "to learn how to mingle our art with nature in ways that culminate in a Madame Hardy rather than a Dolly Parton." Yet why, one wonders, is one rose better than another, particularly when Pollan's gardener is given an aesthetic carte blanche? Disease resistance may play a role, but Pollan is otherwise uninterested in whether plants can survive without human assistance. We are left, then, to wonder how we judge whether our biological creations are worthy or "regrettable." A personal sense of beauty, it seems, is the only guide.

A central weakness in all of this comes from the fact that, in his critique of contemporary thought about humans in nature, Pollan has set his ideological poles too far apart. His portrait of nature domination is so extreme, and his picture of the radical environmentalist so miscast, that virtually every member of society fits somewhere comfortably between the poles. Virtually the entire conservation movement fits within the middle, as do leaders of the American Farm Bureau Federation and leaders of the nation's big timber and pulp companies. The most industrial of grain farmers or tree growers could easily read Pollan's narrative and nod in agreement, for, as they see it, they too are in the garden-tending business. They too work with nature, planting their chosen species, excluding weeds, and wooing nature to produce as much as possible. Pollan tells us to avoid the extremes but leaves

us free to define the extremes as we see fit and to wander unrestrained within the vast gulf between them.

As for Pollan's fear that leaving land alone will create a "DMZ," note the condition today of the most famous demilitarized zone of the past half-century, the one between North and South Korea. Fenced and untended by humans for five decades, the zone now abounds in plant and animal life. Indeed, the Korean DMZ has become a bonanza of life, home to numerous species that have otherwise had trouble surviving on the peninsula, life forms that, through the intensive land-tilling of the Korean people, have little room to live in the human-managed garden.

In the end, then, Pollan's approach is merely a kinder, gentler form of land domination, and it is kinder and gentler not because these are inevitable parts of his garden image but because Pollan himself is kinder and gentler and he hopes that other gardeners will be too. Pollan's ethical precept is simply too vague to provide the guidance and control that landowners and society need. It is too disconnected from the land; too lacking in any ecological base or any vision of a healthy land; too disconnected from the community, from other life, and from future generations. Then there is the intellectual isolation of it all: Pollan's unwillingness, in penning his work, to pay any attention to the vast body of scholarly writing on the subjects that he addresses, the science, the environmental ethics, the environmental history (including histories of the environmental movement and environmental thought), and the deep cultural criticism of serious conservation writers, such as David Ehrenfeld's *The Arrogance of Humanism* (1981).

One can highlight the differences between Leopold and Pollan by placing, side by side, Leopold's community-minded farmer of the future, standing proud on his biologically diverse farm, and Pollan's gardener, surrounded by his high hedge and struggling daily to ward off his many plant and animal "pests."

- Leopold's farmer manipulates his land and makes it grow, just like Pollan's gardener, but his farm is more than that and other than that. His thinking is ecologically grounded and linked to a vision of overall health. Pollan's gardener, in contrast, ignores ecology and ecological interconnections. His vision ends at his garden's edge. For him, health is an attribute of individual organisms, not of the land community.
- For Leopold's farmer, beauty is linked to the healthy, the natural, and the appropriate. For Pollan's gardener, beauty is a personal choice, minimally constrained by nature or locale.
- Leopold's farmer is a member of a social community, and he feels obligated to help sustain that community. Pollan's gardener is a loner, asking no help and offering none.
- Leopold's farmer loves the local wilds. Pollan's gardener loves the tame and pokes fun at naturalists.
- Leopold's farmer is proud of his farm's lengthy bird list. Pollan's gardener is proud of his many hues of well-tended roses.
- Leopold's farmer seeks to make room for wildlife on his land. Pollan's gardener drives them out of his garden.
- Leopold's farmer surrounds his working fields with plants that are local and native. Pollan's gardener happily turns to the exotic.
- Leopold's farmer embraces an ethical orientation undergirded by ecology and by an attentiveness to the enduring wellbeing of the surrounding community. Pollan's gardener embraces as his ethical orientation a vague sense of self-restraint.

Armed with such a comparative list, one is prone to wonder about the popularity of Pollan's book and the tend-the-garden thinking that it expresses. Certainly the favorable reception of this reasoning over the past decade provides evidence that the conservation movement needs to work harder, and better, in drawing attention to the root causes of land degradation. Tend-the-garden reasoning suggests that our conservation problems are easy ones, but they are not. They are difficult problems that challenge the prevailing culture in profound ways.

Since Pollan's book appeared a decade ago, tend-the-garden reasoning has mingled with other, similar strands of conservation thought, based on vague notions of stewardship, sustainability, and mild forms of "wise-use" thinking. Joining this mix has been an implicit claim that conservation will happen if enough people develop fond feelings toward nature or conjure up nostalgic memories of enjoying nature as a child. Those who embrace such ideas, it seems, often feel that they have grasped our environmental predicament and know how to solve it. Yet the ideas they offer, far from being new, are forms of the same cultural misdirections that have brought society to where it now is. One sees here to various degrees a resurgence of human arrogance, so creative in many areas yet so destructive in others. We humans know enough to manipulate the land at will, we tell ourselves; we can charge ahead, getting what we want, without thinking much about ecology; we can use self-created standards of beauty that are disconnected from any visions of enduring health.

Tend-the-garden thinking would have us revert to a fragmented view of nature and to an atomistic understanding of the human predicament, when it has been clear for years that these attitudes have played leading roles in the land's decline. Individual land owners acting alone, it seems to say, can adequately deal with environmental problems, but the falsity of that position is clear. From Leopold's rigorous land ethic we have drifted to a watered down, unscientific, easily manipulated ethic of simply being nice to nature, with *nice* and perhaps even *nature* being defined as we see fit. In its avoidance of the need for major change, tend-the-garden reasoning overlaps with today's pro-business, libertarian calls for

privatization and for unleashing the free market. All such thinking resists the notion that America's individualistic, consumer-oriented culture is materially flawed. All of it rejects the worry, and the evidence, that human arrogance is much too vast.

Tend-the-garden thinking provides a challenge for conservation biologists and for all conservationists who believe conservation can take place only when science plays a key role and only when planning is done at the landscape scale. By endorsing neither idea, tend-the-garden reasoning provides cause for dismay. The proper response for conservation biology is to present its own views more clearly and forcefully, distancing its ideas from the extreme, misanthropic environmental thought that Pollan and others have attacked and also from the watered-down, tend-the-garden reasoning that so many readers find appealing. Today more than ever, good science and clear, critical thought are needed.

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